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ABSTRACT

When considering educational improvement, there are several enormous challenges external to schools that must be faced, including rapid changes in economics and technology, the vast growth of knowledge, and global ecological problems. This article addresses weaknesses and opportunities for change in Finnish primary schools, analyzing the current system with an eye to future social trends. It begins with a discussion of striving for homogeneity in educational opportunities for Finnish children, and then describes current research on the nature of the country's academic achievement levels. It then moves into a discussion of two areas in which this homogeneity of opportunity has not been achieved: gender equality and socioeconomic status. The article then explores future trends and education's response to them, such as changing views of the value of different types of learning (theoretical, processed information versus experiential learning, global and thinking, for example) and the changing nature of work (for example, the suggestion that rising unemployment rates call into question traditional educational models). The article concludes with some comments on how this "futures" perspective can be incorporated in everyday education. Contains 39 references. (EV)

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FUTURES THINKING - A PERSPECTIVE TO IMPROVE THE SCHOOL

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The Finnish primary schools - high classed and homogeneous?

The present primary school system fitted fine with the idea of a welfare state which arouse in the 1960s. The comprehensive school was to render possible social advancement in society and to let the reserve of talent come into use and to improve the social justice (cp. Lehtisalo & Raivola 1986). There was also the idea of demolishing class distinctions, and by supportive teaching to minimize the differences between Finnish children which are caused by regional inequality or socioeconomic circumstances of their parents. The idea of equality was based on similarity.

Even though in the 1980s the assumption of equality was formulated to be considered as "qualitative equality" and the schools were coordinated, has the contents of classroom work has remained relatively the same to all the pupils. Evenness and homogeneity could be seen as a result of our school system. According to the latest research on school achievement there is an upward trend on the stage of learning ability among primary school students in Finland (Havola & Saari 1993) and the quality of learning is high (Linnakylä & Saari 1993; Elley 1992). In comparison with the international results the dispersion of Finnish students' test results is smaller than the others; there are less poor and less top-ranking students in Finland than in the other research countries (Saari 1993). The variation among single students is still remarkable, some have learned everything and some almost nothing.

Homogeneity seems to be gained nationwide. School achievement results in many school subjects are quite similar in different parts of Finland (Linnakylä & Saari 1993). On closer consideration the children in the northern part of Finland and the children living in the countryside are not doing quite

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as well as the others. Are the teachers in rural areas less qualified or is there a lack of proper stimulant in rural homes or is the code of the language defect, as one could assume according to the investigation made among the Swedish speaking population in Finland (Brunell 1993). Open questions still remain to be solved by further research, but also the northern and country-side schools as they are setting their educational goals and trying to improve the quality of their teaching.

There is always a certain amount of uncertainty in the concept of school achievement and in measuring any achievement, so the findings of research on school achievement cannot be considered as the truth of the Finnish primary school nor as a school-leaving certificate. School itself is just one of the factors behind school achievement. For instance home, environment and peergroups have a remarkable role in providing the right attitudes and examples for children. It is doubtful whether measured achievement in single subjects is the essential matter of educational goals or school practice. The research subject has been the most easily measurable school subjects like mathematics, foreign languages and mother tongue. Pen and paper tests are simple, but they only give limited information. It is important to develop more distinguished evaluation methods.

Homogeneous product can also be a product of even thickness. Are there too many average students sitting in average class rooms? It is alarming that depression among Finnish school children is more common than in other European countries and that the therapy does not seem to be available even for the most depressed children (Puura 1995). There is unfortunately no consideration on the cause of depression in the extent medical research, but presumably school has its share in proportion to depression. An over active, interfering student who regularly violates school norms will get attention and care and there are places better suitable for him /her in supportive classes or in special schools. A silent and unnoticeable student can be well accepted in the frames of school norms; she/he will not learn but on the other hand he/she is not disturbing anybody - why to worry ?

The Finnish primary school - androgyn and middle classed?

The promotion of sexual equality is a commission to school by the law but there are no written instructions or guidance for instance for the curriculum process. The official national curriculum directive (anon 1994) lies on the naive assumption of androgyn school. The regulations are based on the idea of individuality but forget the basic distinction between men and women. There are differences between male and female culture as well as between individual male and female targets of education. Gender differences should

be taken into consideration when setting the educational goals and in everyday school practice.

Education based on the radical idea of sexual equity has not succeeded in Finland according to the research reports made by Stenström & al. (1987) and Kuusinen (1992). Sex is one of the major factors of school achievement and it was the most significant factor in occupational choice made by secondary education students about ten years ago (Nummenmaa & al. 1985) and the situation appears to be the same according to the statistics for selections made in national vocational education. Girls' better achievement at school does not guarantee a better future. Girls in general make more conservative choices during school time and during further education and the amount of girls decreases in higher education. It is worth considering that it is harder to get into the trades girls choose the most and they more seldom than boys get into the specific vocational school they would prefer (Lahelma 1987).

School does not create the inequality between the sexes. Children's way of life is already divided sexually when they start school. But on the other hand, school does not alleviate the differences between males and females. Girls will see the school where they do better than boys but on other direction they see the society where men do better. There are signs of slow progress but if the change is based on instructions from a higher organ it probably is inefficient. Gender problems are common but they are also problems of a single school making decisions and producing the curriculum.

One of the essential issues concerning educational equality is the achievement of children with different background. Social status (socio economic status of the parents) defines even more than sex the achievement at school and in the society (Kivirauma & Kivinen 1986; Brunell 1993). Also in Israeli and American cultures the high social status of the parents still appears to be an important factor when predicting good school achievement (Amato 1987, 213; Ninio 1990; Cassidy & Lynn 1991). Finnish culture is often seen consistent in the way of life and in economic settings. The education and the occupation of the parents, the income bracket and the values of the family vary both locally and nationally. Schools have limited and questionable opportunities to form these basic tasks to fit better with the desires of a school. The newcomer has the right to be accepted the way he/she is, but the background of the children is still an important underlying factor in school practice.

In Kuusinen's (1992) broad longitudinal study the advantageous background of school children turned out to be the key for good school achievement. For closer inquiry Kuusinen standardized the aptitude of the children. Students from the highest socio-economic background had a good or fair school achievement, never poor, and those who belonged to the lowest social class did more often poor or fair than good at school. High social rank was very supportive, because even the ungifted children with high socio-economic status achieved good or fair results more often than poor at school.

Aptitude (or talent) is a changing, culture based concept, so research is always one step behind. Socio economic background is not a potent factor by itself but a collage of different factors. Parents' educational level (especially the father's), parents' occupation and wealth has been so far the explanatory variable in research. Variables like attitudes, lingual codes and abilities, behavioral norms etc. are even more complicated, hard to verify and because of that, neglected in analysis. Even though supportive acts by schools have been directed to those who do not do well at school, it has not ensured more equal school achievement. It is interesting to notice that the children who are placed in special education (schools for mentally retarded, transitional classes, contemporaneous special education) are homogeneous in social background: nine out of ten come from the lowest social class homes (Kivirauma & Kivinen 1986).

School cannot solve social problems but a single school can decide whether to pay any attention to the to child's background or not. Mäki-Kulmala (1989) emphasizes the importance of a family taking responsibility. She claims that it is common in our society to be a guardian of a family or to protect a family and not to make a family responsible for their acts. By doing this the family is losing one of its primary functions - the socialization. Also the economical problems, the fast rhythm of life and the loosening family ties are to blame. According to Mäki-Kulmala the problem is not that of the parents transferring archaic models of adults, old customs or yesterday's values, but that the parents have no developed value- or role models themselves to transmit to their children. In this case the only education will be school education.

Identifying the problem should lead to solving the problem. Unfortunately schools have not recently succeeded in improving the equality of education. Instead, the amount of remedial teaching and placement to special education have decreased and the number of students in a class has increased. It is sad to say that too often in planning and decision making both at the level of an individual school and educational politics the 'contract for future delivery' is often forgotten. Economic profitability and human justice give reasons for longitudinal perspective in planning and decision making.

New challenges for schools

There are problems to be solved inside the school but there are also several enormous challenges from outside to which the schools should respond. Besides the defects in school system, also the fast social change and global issues concern education. The rapid changes in technology and economics and the vast growth of information as well as the global ecological problems should be taken into consideration at the school. Racing and efficiency demands are part of today's educational politics and they are taking the

place from the former main issues like equal opportunities in school. It is possible that school work will become more selective, competitive and assertive (Kuusinen 1994) and individual specialization will turn out to be unequalization (Aho 1994).

Changing education in a changing world

After the good years business is still slack which has made people more aware of the state economy. It would be an easy solution to join the economical race again if the limits of growth on the former basis would not be common knowledge. All the grand research reports of the estimated changes in technology, in economics, population etc., (such as The Limits of Growth, Global 2000, Mankind at a Turning Point, The Year 2000, etc.) show analogously that the present way of using material and energy is intolerable in the near future. It is important to separate development and progress because by the present speed of growth the production of nutriment, the amount of population and the estimated lifetime will strongly decrease after a few decades (Meadows & al.1993).

Futures research is new in many fields of science. One of the main ideas of futures research is, instead of foretelling, to produce knowledge to help to make necessary decisions and to influence social and global development. It can also be seen as a source of criticism and new ideas. The Future Barometre (Mannermaa & Mäkelä 1993) is a pilot project based on the work of an expert panel. It shapes the future of education in Finland up to the year 2004 and 2017. The results of the barometer emphasize the importance of aspects of human qualification in the future. The most important qualification aspect will be learning ability. Also present low ranked estimates like global future thinking, tolerance of dissimilarity and ecological thinking are rising, as well as ethics and esthetics.

Even those critics who claim that school is too theoretical and full of cut knowledge should be satisfied with the results of the Future Barometre. In Mikko Takala's meritorious research on 'School Allergy' (1992) there is the profound statement that especially the secondary stage of primary school is too theoretical for the particular age group which needs experiences. Too much knowledge is also unsatisfying according to the brain scientist Bergström (1992). Concentrating on cut knowledge at an early stage can even lead a person to become mentally duller. From his point of view esthetics, seeing the entirety and values (found by oneself) are essential in education. Bergström's and Takala's ideas are not unique nor new, but they still are important. As a matter of fact the same ideas about knowledge separated from its social context could be found in the writings of Dewey and Childs as early as 1933.

The futures researcher Mika Mannermaa criticizes the school much on the same basis. He claims that school uses false thinking: knowledge is learned

by heart, precise notes are made about past matters. The knowledge is considered secure, eternal and unchangeable. Mannermaa desires more criticism, relativity and uncertainty instead of dogmatic. The question of school achievement is also a question of pedagogy. Co-operation, communicative abilities and individuality form a challenging triangle.

The criticism against cut information is open and international. It is interesting to notice though that the standpoint of the definition varies. The French sociologists Foucault and Bourdieu emphasize the social origin of information. According to Foucault (Pirttilä 1993) information is an essential factor in making and creating the structures of power. Bourdieu (1985) defines information as one of the many - but still the most important - factor of symbolic power. Masuda and Toffler (Toffler 1991), on the other hand, regard the meaning of information as the main resource of power in the society.

It would be easy to pick more demands concerning different pedagogical or methodological subject matters from the media or from research results. There are a lot of claims and those who enter a claim, and their quality and profoundness varies. Schools cannot respond to all requirements made nor to get involved in many projects. School criticism is, however, worth noticing as a remarkable challenge for educational planning.

The cultural change of work and education

The most accurate and a very important challenge for the society as well as for the individual is the crises of the work culture - the enduring decrease of wage work and the huge unemployment rate. One of the main tendencies to solve the problem in Finland has been to increase the educational level. The essential question is whether it is wise to educate the unemployed to new occupations in fields where there are already problems. Is the contribution due to product?

Unemployment changes the meaning of profession and wage work. Ulrich Beck (1986) presumes that education must be reformed in this situation. He gives an interesting example. He compares school with a ghost train. There is a railway station to buy a ticket, there is a train to step into, but where the train stops no one knows. Even the Finnish educational optimism can vanish quickly if the examples in real life prove to be something else than educational goals or education politics would want them to be.

In underemployment society education will have the same tasks as in a society with full employment according to Melametsä (1994). The content of these tasks (productive task, socialization, selection task) and their mutual relationship will change though. In underemployment society it is not reasonable to offer occupational specialized vocational education nor higher education to all but the elementary education and basic vocational education would be available to everyone. The productive task of education would be

more specific and narrow than before and it would challenge the schools to educate some people to more exacting level than before. The socialization task will become more accurate than before - there will be a need for adaptive education, citizen activities and cultural hobbies. During school time children will be selected to employment or unemployment.

The vision that Melametsä gives is just one among many. It is quite a hopeless vision to those children who were not born in the right family. The decrease of wage work leads to the question of adjustment. Are we able to adjust to the changing situation - how do we respect the work itself? Broady (1985) who brought the idea of the hidden curriculum into the daylight, claims that school succeeds well in teaching what the children are not good at. And for instance a typical way of thinking among school children could be "I'm not good at maths" which suites well with mass unemployment. It is not easy to change the Protestant ethic values, which have been the leading values in western society for centuries. In Melametsä 'model' people will be divided into 'grain and chaff'. Antikainen (1985) creates a more equal point of view in one of his articles. He suggests that instead of seeing work as a duty, it is important in dualeconomy to separate the concepts of work and duty. This would mean not only a new definition and distribution of work but also a remarkable change in life style.

Sensitivity to social change and needs is the most important challenge to education. By collecting pieces the unity that would serve either society or the individual will not be reached. New thoughts and ideas are easily found, but the risk to run after fashions is obvious. The re-evaluation of organizations' goals and the products of work requires profound arguments and the change process needs reflective questions - what, how, why.

The school and the future

After several 'fat years', during which schools like other public organizations developed only quantitatively, it is important to use the scantiness effectively. Efficiency is a positive qualifier if it will be understood as exact use of resources of a working team. Underestimating the resources is not motivating and overestimating will cause weariness. In the latest national guidebook - Basis for Primary School Curriculum making (Anon. 1994) - the stress lays on efficiency, which is important especially when creating resources for better learning opportunities. Schools are encouraged to raise the level of education, to recreate the school subjects and to pay more attention to individuality and free choice. The official national view is broad and supportive to the ongoing setting of goals and curriculum making.

The new destination given to schools is based on changes in authoritative thinking but also on changing concept of learning. The former behavioristic psychological model of learning meant in practice a delivery of informa-

tion/knowledge which is quite the opposite of the idea of guidance in learning according to constructivism and humanistic theory. The former main idea of static talent leads to circular conclusion: the student is talented and therefore can learn quickly and easily; but it was the speed and easiness of learning that defined her/him as a talented student at the beginning (Leimu 1993). According to the new concept the talent is a changeable qualification, a kind of starting level, which can be lifted by processing the experiences of the learner. (cp. Kohonen & Leppilampi 1994)

The change of the concept of learning seems to be small, meaningless. It will remain that way as long as the concept is considered as external, theoretical thinking and not as a part of daily school life. In fact the new concept means a remarkable change in the role of a teacher, in learning and in setting the educational goals. Teacher as an information dealer has taken into account the developmental stage of the child, planned the teaching sessions, activated and motivated the children and in the end tested the knowledge children reached. A new kind of trainer teacher conducts more heterogeneous team. To be successful the teacher of the new approach will plan, check the information available, set the goals with the children and take into account the individual element - the unique child.

The demand of change is great for a single teacher, because the question is not just to reset some external factors, but to change the way of thinking. Teaching which is divided into certain subjects and which is located behind the closed classroom door is far from the individually supportive school which gives a lot of positive experiences. It is possible for schools to advance just by starting to evaluate and reflect on everything done in the school and by teamwork trying to find new goals from the future for the future - the time we are raising the children for.

The future perspective is challenging for school if we think about the rapid changes in society. And the speed seems to become faster and faster as Alvin Toffler (1971) predicted a few decades ago. We live a critical period of time during which no one can foretell the future. On the other hand the future is not predestined, but ensues from the choices and acts we make today. Those researchers who have thought about human future orientation, like de Jouvenel (1969), McHale (1969) and Polak (1937), do emphasize that there are several possible futures to be made and to be contributed. It is important for an Aristotelian person to see the effect of shaping the future to the quality of decision making at the present and at the future.

The future perspective is also a perspective of hope for schools. We can not know about the future, not even about our own, but we act every day like we could (Ketonen 1986). On longer term we could speak about the possibilities of the future. Antikainen (1985) considers the linkage between the state economy and education to be indirect and complicated but relatively independent. Therefore schools might be able to set goals for the future. Quite often school and education are seen as a projection of the society and not as a creative innovator. Johan Galtung (1980) encourages to seek for values on which the goals are based on, and to find those tendencies in

society by which the goals are to be reached and the social forces which ought to be liberated.

There have been many different school improvement projects all over the world. A lot of money and time have been spent to empower the schools, but the projects have not succeeded very well. The ordinary model for school improvement begins with noticeable problems of a school. The next stage would be setting the goals for the school. But at the moment when the outside agent leaves the school, the stages of implementation and evaluation are forgotten (cp. Fullan 1993; Hargreaves 1992). The improvement models are very problematic also because there is really nothing new inside the planning circles - there is a lack of new ideas, new perspectives. School can change but improvement or progress is not possible without new, wider perspective - a perspective of the future society. Let's turn the focus on future!

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